

A NEW CARDAMINE FROM SOUTHERN MAINE.

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CARDAMINE **Longii**, n. sp. Differt a *C. pennsylvanica*: foliis simplicibus reniformibus vel suborbicularibus 0.5–1.5 cm. longis petiolatis basi cordatis vel rotundatis, rarissime inferioribus cum 2 foliolis lateralibus parvis; floribus apetalis 0.7–1.2 mm. longis subsessilibus: siliquis subsessilibus patentibus vel adscendentibus subulatis 5–8 mm. longis in stylum 0.5–1 mm. longum attenuatis; seminibus ovatis flavis brunneo-marginatis 1.2 mm. longis 0.8 mm. latis.

Differing from *C. pennsylvanica* in having the leaves simple, reniform or suborbicular, 0.5–1.5 cm. long, petioled, cordate or rounded at base, very rarely the lower with 2 small lateral leaflets: flowers apetalous, 0.7–1.2 mm. long, subsessile: siliques subsessile, spreading or ascending, subulate, 5–8 mm. long, attenuate to a style 0.5–1 mm. long: seeds ovate, yellow, brown-margined, 1.2 mm. long, 0.8 mm. wide.—MAINE: shaded rock-pockets and crevices covered at high tide, Cathance River, Bowdoinham, September 14 and 19, 1916, *Fernald & Long*, no. 13,698 (TYPE in Gray Herb.); also on tidal mud-flats of Cathance River, Bowdoinham, no. 13,697.

A remarkable little plant with which it is a pleasure to associate the name of Mr. Bayard Long, the writer's companion on many collecting trips. Differing at once from *C. pennsylvanica* Muhl., *C. hirsuta* L., *C. flexuosa* With., *C. parviflora* L. and their allies in its usually entire rounded or cordate leaves, its minute apetalous flowers and its very short almost sessile capsules. In the type locality the plant was in the shelter of an overhanging ledge and the carpet of plants so strongly suggested *Chrysosplenium* that we at first thought we had found a strange species of that genus.

On the tidal flats and rock-pockets along Cathance River, *Cardamine Longii* is associated with a remarkable colony of estuarine species: *Sagittaria heterophylla* Pursh (first definite station in Maine); *Eleocharis diandra* C. Wright; *Scirpus Smithii* Gray, var. *setosus* Fernald; *S. fluviatilis* (Torr.) Gray; *Eriocaulon Parkeri* Robinson (found also on the flats of other tributaries of the Kennebec and on the tidal reaches of the Penobscot); *Nuphar advena* (Ait.) Ait. f. (the first known station for true *N. advena* east of New York); *Tillaea aquatica* L.; *Elatine americana* (Pursh) Arn. (see RHODORA, xix. 10–13); *Samolus floribundus* HBK. (here as on the lower Penobscot delighting

in cool sheltered rock-pockets, thus suggesting *Primula farinosa* of more northern regions); *Bidens colpophila* Fernald & St. John; and *B. Eatoni* Fernald, var. *kennebecensis* Fernald (see RHODORA, xix. 76).

From this list of some of the characteristic associates of *C. Longii* at the type locality it is evident not only that the plant has associated itself with a peculiarly local series of estuary species, but that search is likely to reveal it at other estuaries where some of these species occur.

GRAY HERBARIUM.

NOTE ON NUPHAR.— In RHODORA xviii. 90, 1916, the Local Flora Committee reported *Nymphaea advena* Ait. and *N. variegata* (Engelm.) G. S. Miller as both occurring within the Boston district. The differences between these species have been clearly brought out by Miller & Standley (Cont. U. S. National Herb. xvi. 3) and further discussed by Fernald & St. John (RHODORA xvi. 137–141, 1914). In the latter article the validity of the specific name *variegata* is proved.

The consideration of these descriptions shows true *N. advena* to be an estuarine plant. It has erect leaves usually borne *above* the surface of the water, with lobes mostly triangular, and diverging about 80°. The leaves are 13 to 33 cm. long and 14 to 25 cm. broad; sinus 4.5 to 10 cm. deep. An examination of the specimens in the Club Herbarium from the Boston District shows none of this plant, while *N. variegata* is common.

Prof. Conard's careful researches on nomenclature (RHODORA xviii. 161–4) show the validity of the generic name *Nuphar* for these yellow cow-lilies. The plant found in our region should therefore be called *Nuphar variegatum* Engelm.— CLARENCE H. KNOWLTON, for the Local Flora Committee.

The twenty-third annual FIELD MEETING OF THE JOSSELYN BOTANICAL SOCIETY OF MAINE will be held at Greenville Junction, July 31, 1917, with headquarters at the Piscataquis Exchange. Announcements will be sent to members and to others on request two weeks previous to the meeting. — DANA W. FELLOWS, Secretary, Portland, Maine.

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